

## ABSTRACT OF THE DISCLOSURE

An active implantable medical device, in particular a pacemaker, defibrillator, cardioverter, or a multisite device including detection of a risks of a fusion situation. This device is of the double chamber type, and it detects atrial and ventricular events, provides atrial and ventricular stimulation, and delivers a ventricular stimulation pulse after expiration a programmed atrio-ventricular delay (AVD) following the detection of an atrial event (P, A), and in the absence of detection of a ventricular spontaneous event (R) within the AVD. A fusion situation is detected based on an analysis of a sequence of successive cardiac cycles for which the atrio-ventricular delay is modified from one cycle to the next (AVD, AVD + 31, AVD + 63). The presence or the absence of a ventricular spontaneous event (R) occurring inside the atrio-ventricular delay thus modified is determined, and the existence of a risk of fusion is determined in the event of the occurrence of a spontaneous ventricular event during at least one of the cardiac cycles of the sequence. The detected risk of fusion can <sup>be</sup>~~be~~ used to control the operation of implant.